

CLAIMS

What is claimed is:

1. A distinct count query system comprising:  
a query process component to retrieve a plurality of partitions from a database;  
a range component that determines the maximum and minimum values associated with each partition; and  
a group component that utilizes the maximum and minimum range values to determine independent partitions or partition groups, wherein independent partitions or partition groups are executed concurrently with other partitions.
2. The system of claim 1, wherein the database is an OLAP database.
3. The system of claim 1, further comprising a buffer component to facilitate execution of the distinct count query on sections of the partitions.
4. The system of claim 1, wherein the partitions contain one or more numeric identifiers.
5. The system of claim 4, wherein the numeric identifiers are ordered in ascending order from smallest to largest value.
6. The system of claim 5, wherein the numeric identifier is a customer ID.
7. The system of claim 5, wherein the numeric identifier is a product ID.
8. The system of claim 1, wherein partitions with overlapping ranges are executed in parallel.

9. A distinct query system comprising:
  - a means for receiving partitions from a database;
  - a means for identifying independent partition groups;
  - a means for executing independent partitions in parallel with other partitions.
10. The system of claim 9, wherein identifying independent partition groups comprises a means for determining a range of partition data.
11. The system of claim 10, wherein the independent partition groups have a non-overlapping range with respect to other partitions.
12. The system of claim 9, wherein partitions in the partition group contain ordered numeric identifiers.
13. The system of claim 9, the database is a multidimensional database.
14. A method for executing a distinct count query comprising:
  - determining ranges associated with partition data;
  - identifying independent partitions based on the partition ranges; and
  - executing a distinct count query on a partition group concurrently with other partitions to be queried.
15. The method of claim 14, wherein partition data includes numeric identifiers.
16. The method of claim 15, wherein the numeric identifiers are ordered in partitions.
17. The method of claim 16, wherein the identifiers are ordered in ascending order.
18. The method of claim 17, wherein the ranges are determined by retrieving the first and last values from each partition.

19. The method of claim 18, wherein an independent partition group includes one or more partitions that have non-overlapping ranges with respect to other partitions or partition groups to be queried.
20. The method of claim 19, wherein partitions with overlapping ranges are executed in parallel.
21. A computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 14.
22. A method for executing a distinct count query on a database comprising:
  - pre-aggregating database data;
  - determining a minimum and maximum range of a plurality of data partitions;
  - identifying independent partition groups to be executed simultaneously with other queried partitions, the independent partition groups including one or more partitions with a non-overlapping range with respect to other queried partitions.
23. The method of claim 22, wherein pre-aggregating database data comprises separating data into partitions.
24. The method of claim 23, wherein data is separated automatically based on heuristics associated with the database.
25. The method of claim 23, wherein pre-aggregating database data comprises ordering partition data.
27. The method of claim 22, wherein pre-aggregating database data comprises eliminating redundant data in each partition.
28. The method of claim 22, wherein the other queried partitions include overlapping ranges which are executed synchronously and in parallel.

29. The method of claim 22, further comprising executing the distinct count query on sections of partitions utilizing a buffer.
30. The method of claim 22, the database is an OLAP database.
31. A computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 22.